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MEMORANDUM
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TO: THE COMMISSION

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ORIGINAL

FROM: Utilities Division

AZ CORP COMMISSION
DOCKET CONTROL

DATE: November 10, 2010

RE: ARIZONA PUBLIC SERVICE COMPANY - APPLICATION FOR APPROVAL OF SCHOOLS AND GOVERNMENT RENEWABLE ENERGY PROGRAM (DOCKET NO. E-01345A-10-0166) AND APPLICATION FOR APPROVAL OF ITS RENEWABLE ENERGY STANDARD AND TARIFF IMPLEMENTATION PLAN FOR 2011 (DOCKET NO. E-01345A-10-0262)

Background

On April 29, 2010, Arizona Public Service Company ("APS" or "Company") filed its application for approval of its schools and government renewable energy program, pursuant to Decision No. 71448. On July 1, 2010, APS filed its application for approval of its 2011 Implementation Plan pursuant to the Renewable Energy Standard and Tariff ("REST") Rules. On July 26, 2010, the two dockets were consolidated. On October 13, 2010, APS submitted a Supplemental Filing.

The APS REST Implementation Plan 2011 to 2015

The APS REST Implementation Plan 2011 to 2015 is a five-year plan describing how APS intends to comply with the REST requirements. In a separate document, Attachment B of the APS application, APS has filed its Distributed Energy Administration Plan ("DEAP") describing how APS intends to meet the annual Distributed Renewable Energy Requirement.

APS had originally estimated that the cost for full compliance with the REST Rules would total \$96.4 million in 2011. This is an increase of about 11 percent over 2010's \$86.7 million. Budget details are given in Table 1 below.

Included in the Supplemental filing was an update on 2010 RES incentive funding and a proposal for improving the wholesale distribution interconnection process for renewable energy projects. The impact of increasing the number of renewable power interconnections on APS' distribution system affects safety, power quality, and reliability.

APS is proposing a system to improve and streamline the interconnection process by identifying the most viable projects. Three levels of increasingly detailed studies would be performed at the developer's request, and would identify technical issues earlier in the development process. APS would charge fees associated with requested studies, consistent with Commission Decision No. 69674. The first two optional studies, a Feasibility Study and a

System Impact Study, would cost the developer \$15,000. The third study, a Facilities Study, would be required and cost the developer a fee of \$100 per hour with a \$55,000 deposit. All fees would be applied to the RES budget, offsetting resources required for the services. APS included modifications to the proposed APS RES adjustor, to reflect this.

Staff has reviewed the APS proposed Wholesale Distribution Interconnection Process. Staff has reviewed the process improvements and proposed fee schedules. Staff believes it is necessary for APS to analyze an interconnection's impact on its distribution system. The proposed fees for APS' engineering expertise are reasonable. However, new fees should be on a Tariff Schedule.

In the Supplemental Filing, APS recalculated the timing for expected start-up of various non-residential performance based incentive ("PBI") projects, Powerful Communities projects, and AZ Sun projects. This recalculation resulted in a downward revision of APS' budget estimates for 2011, lowering the APS budget request for 2011 by \$3.9 million. This resulted in a revised budget request of \$92.5 million compared to original proposed budget amount of \$96.4 million.

As part of the Supplemental Filing, APS has revised the Schools and Government Rate Schedule in order to allow the schedule to be used in conjunction with a new schools time-of-use rate schedule that was approved by the Commission in August 2010.

Finally, in the Supplemental Filing, APS submitted revisions to the Distributed Energy Administration Plan. Included was a clarification that Rapid Reservation requests will not be counted as part of the maximum 600 reservations that would be accepted in the first three funding cycles. The Rapid Reservation funds instead would come from the fourth funding cycle.

APS is now requesting increases in its adjustor rate to collect \$86.5 million; \$6.0 million is collected in base rates to reach the total of \$92.5 million. This budget is detailed in Table 1. Staff is proposing a budget of \$96.4 million.

REST adjustor rates would increase about 17 percent and are shown below in Table 2.

Table 3 presents a variety of typical Customer types with the monthly RES surcharge amounts each would pay.

Table 1
APS 2011 REST Budget

<i>Line No</i>	<i>\$ Millions</i>	<i>2010</i>	<i>APS Original</i>	<i>APS Adjusted</i>	<i>Staff Proposed</i>
1	<u>Renewable Generation</u>				
2	Purchases and Generation	8.5	17.0	18.8	18.8
3	Administration	1.3	1.5	1.5	1.5
4	Implementation	1.1	1.5	1.5	1.5

Table 1- APS 2011 REST Budget (Cont'd)

5	Total Renewable Generation Contracts and O/M	10.9	20.0	21.8	21.8
6	Estimated Green Choice/Rollover Offset Credit	-0.4	-3.8	-0.6	-0.6
7	Total Renewable Generation	10.5	16.2	21.2	21.2
8	Customer-Sited Distributed Energy				
9	<u>Existing Contracts and Commitments</u>				
10	Distributed Energy RFP		1.1	1.1	1.1
11	Innovative Technologies		0.3	0.3	0.3
12	Existing Production-based Incentives	16.6	15.3	7.6	7.6
13	Flagstaff Community Power Project		0.4	0.4	0.4
14	Wholesale Distributed Energy		0.2	0.2	0.2
15	ARRA Projects/Incentives		1.2	1.2	1.2
16	2010 Residential Incentive Commitment		0.9	1.7	1.7
17	Total Existing Contracts and Commitments	16.6	19.4	12.5	12.5
19	New Incentives and Commitments				
20	Residential Up-front	44.1	34.0	34.0	39.0
21	Schools and Government Buildings		7.3	7.3	6.8
22	Non-Residential Up-front	2.0	2.0	2.0	2.0
23	Production Based Incentives		2.1	0.3	0.3
24	Powerful Communities		0.4	0.2	0.2
25	Total New Incentives and Commitment	46.6	46.3	44.3	48.8
26	Total Incentives and Commitments	63.2	65.7	56.8	61.3
27	<u>Non-Incentive Distributed Energy</u>				
28	Customer Self-Directed	0	0	0	0
30	Administration	1.6	1.4	1.4	1.4
31	Implementation	3.1	3.7	3.7	3.7
32	Information Technology	1.5	2.0	2.0	2.0
33	Marketing & Outreach	4.8	5.4	5.4	5.3
34	Total Non-Incentive Distributed Energy	11.0	12.5	12.5	12.4
35	Total Customer Sited Distributed Energy (line 26 + line 34)	74.2	78.2	69.3	73.7
36	Research, Development, Commercialization, & Integration	2.0	2.0	2.0	1.5
37					
38	Total RES Budget	86.7	96.4	92.5	96.4

Table 2
APS 2011 REST Adjustor Rates

	<i>2010</i>	<i>APS Original</i>	<i>APS Adjusted</i>	<i>Staff Proposed</i>
Rate per kWh	\$0.0086620	\$0.0101320	\$0.0096630	\$0.0101320
Residential Monthly Cap	\$3.46	\$4.05	\$3.87	\$4.05
Small Non-residential Monthly Cap	\$128.70	\$150.53	\$143.56	\$150.53
Large Non-residential Monthly Cap	\$386.10	\$451.60	\$430.67	\$451.60

Table 3
Customer Impact of Proposed REST Adjustor Rates

		<i>kWh per Month</i>	<i>2010</i>	<i>APS Original</i>	<i>APS Adjusted</i>	<i>Staff Proposed</i>
Customer Types and Monthly Costs						
1	Residence	>= 400	\$3.46	\$4.05	\$3.87	\$4.05
2	Dentist Office	2,000	\$17.32	\$20.26	\$19.33	\$20.26
3	Hairstylist	3,900	\$33.78	\$39.51	\$37.69	\$39.51
4	Department Store	170,000	\$128.70	\$150.53	\$143.56	\$150.53
5	Retail Video Store	14,400	\$124.73	\$145.90	\$139.15	\$145.90
6	Large Hotel	1,067,100	\$128.70	\$150.53	\$143.56	\$150.53
7	Large Building Supply/Hardware	346,500	\$128.70	\$150.53	\$143.56	\$150.53
8	Hotel/Motel	27,960	\$128.70	\$150.53	\$143.56	\$150.53
9	Fast Food	60,160	\$128.70	\$150.53	\$143.56	\$150.53
10	Large High Rise Office Bldg	1,476,100	\$128.70	\$150.53	\$143.56	\$150.53
11	Supermarket	233,600	\$128.70	\$150.53	\$143.56	\$150.53
12	Convenience Store	20,160	\$128.70	\$150.53	\$143.56	\$150.53
13	Hospital (< 3 MW)	1,509,600	\$128.70	\$150.53	\$143.56	\$150.53
14	Hospital (> 3 MW)	2,700,000	\$386.10	\$451.60	\$430.67	\$451.60
15	Copper Mine	72,000,000	\$386.10	\$451.60	\$430.67	\$451.60
16	Mall (>3MW)	1,627,100	\$386.10	\$451.60	\$430.67	\$451.60

Renewable Generation

For year 2011, APS indicates that it would own and operate approximately 6 MW of solar capacity. In addition, APS has entered into power purchase agreements for 228 MW of wind, geothermal, and biomass/biogas renewable generation capacity, and expects 20 MW from its Small Generation Request for Proposal ("RFP") and 33 MW from AZ Sun projects. This totals 287 MW of renewable generation as described in detail in Exhibit 3B of Attachment A in the APS Supplemental filing.

The expected annual MWh of generation from existing contracts and planned generation is shown in Exhibit 3A of Attachment A of the APS plan. The estimate for existing renewable generation is 851,805 MWh in 2011.

Schools and Government Program

Decision No. 71275 requires APS to offer proposals which could increase distributed energy ("DE") participation for governmental and schools customers. APS will offer these customers performance-based incentives for installation of qualifying non-residential RES facilities as part of a Schools and Governmental Program.

A Schools and Government Program was filed on April 29, 2010 (E-01345A-10-0166). With that filing, APS is seeking approval of a new program for on-site renewable energy for schools and governmental institutions that would substantially reduce or eliminate up-front costs for solar energy.

To eliminate up-front costs that would normally be incurred by schools or governmental institutions when installing solar facilities, APS is proposing three customer options to eliminate or reduce up-front costs for schools and governmental institutions:

- 1) third-party ownership
- 2) utility-ownership option
- 3) solar daylighting bank financing option

With the Third-Party Ownership option, the third-party owners traditionally require no up-front payment from the customer, instead the customer pays the third-party owner for the lease of the system equipment and the customer benefits from the energy produced by the on-site PV system.

For the Utility Ownership option, APS is proposing to make available a utility ownership option for the proposed Schools and Government Program. To maximize opportunities for solar installers and developers, no more than one-half of the installed PV capacity would be eligible under the utility-ownership option. APS proposes PV system installations utilizing the same utility ownership arrangement that is being offered in the recently approved Community Power Project - Flagstaff Pilot program. PV systems would be connected directly to the distribution

grid on the customer's property, and the customer would be billed for a portion of their usage equivalent to the output of the PV system, with a specific rate designed to reflect the benefits of a customer-owned renewable resource, i.e., a proposed School and Government Solar Program Rider Rate Schedule. This solar charge would remain unchanged for the twenty-year term of the rate schedule.

Renewable energy from the utility-owned solar systems would not count toward the RES distributed energy requirements; rather, they would be applied to the Company's overall RES requirement. APS is proposing that the cost of ownership (or revenue requirement) for this option would be recovered through the RES adjustor until the investment is included in base rates or other recovery mechanism.

In the Solar Daylighting Project Financing option, the costs associated with solar daylighting installations are significantly less than that of PV and solar thermal installation costs and school districts and governmental institutions have expressed a preference to purchase and own these systems. For customers interested in a financing option to install solar daylighting, APS will partner with National Bank of Arizona to offer customers an option that eliminates up-front cost. Solar daylighting projects under the proposed Schools and Government Program would be eligible for a five to seven year operating lease, with the option to purchase the system at fair market value at the end of the lease term.

In its Supplemental Filing, APS revised the Schools and Government Rate Schedule ("SGSP"). In Decision No. 71871 the Commission adopted a new optional time-of-use ("TOU") rate applicable to K- 12 schools, which will provide daily and seasonal price signals to encourage load reductions during peak periods. In this docket, APS has revised the Schools and Government Rate Schedule (Exhibit D) to incorporate the changes necessary to allow the schedule to be used in conjunction with the new schools TOU rate schedules.

Rate Schedule SGSP is shown in Exhibit H of APS' filing. As indicated, its design is the same as the Community Power Project - Flagstaff Pilot program, with a solar charge ranging from 7.3 to 9.3 ¢/kW, depending on the base service retail rate schedule. For School or Governmental customers on time-of-use rates, the solar energy would be netted against on-peak, shoulder-peak, or off-peak time periods according to an allocation based on typical usage. The solar charge would remain unchanged for the twenty-year term of the rate schedule.

Staff has reviewed the Revised Rate Schedule SGSP. Staff's analysis finds that SGSP is a properly-designed rate which allows the benefits of renewable energy to flow back to the customers in a reasonable manner.

Feed-In Tariff Programs

In January 2010, the Commission issued a Notice of Inquiry to solicit input on specific issues related to developing a potential Feed-In Tariff ("FIT") program, which is a transaction mechanism that is designed to encourage the targeted deployment of renewable energy

resources. Under a FIT, an electric utility pays a renewable energy developer for both energy and renewable energy credits ("RECs") at an agreed-upon and sometimes predetermined rate for an extended number of years under a standardized commercial agreement.

Well-designed FIT policies could offer additional methods for promoting the development of renewable energy resources. APS is proposing two programs aimed at different renewable energy market segments that embrace FIT principals: 1) Powerful Communities, a wholesale DE FIT program that targets customer groups that have had limited participation in RES programs; and 2) a Small Generator Standard Offer Program that would provide energy credited towards APS's renewable generation requirements. Each of the programs is designed to extend over a three-year period.

Powerful Communities (Wholesale Distributed Energy FIT)

The proposed Powerful Communities FIT program targets market segments that currently have a more difficult time accessing the incentive funding through the current RES programs, specifically low-income housing entities, homeowner associations, multi-tenant facilities (residential and commercial), and not-for-profit charitable organizations. PV facilities that are between 30 kilowatts and 200 kilowatts and are planned to be operational within 12 months would be eligible for this program. APS is proposing that the program be limited to 2 megawatts of total annual procurement in each year of the program, for a total of 6 megawatts. This limit to the program size is proposed as a way to manage the amount of customer-subsidized developer incentives paid annually. Participants will be awarded on a first-come, first-served basis. The Company is proposing a standard fixed price offer for the Powerful Communities FIT Program of \$0.195/kilowatt-hour for the production output of the system under a 20-year agreement. The program has an estimated annual cost of \$375,000, and a lifetime commitment for these 20-year contracts of approximately \$22.5 million.

Small Generator Standard Offer Program

The Small Generator Standard Offer would focus on four aspects of smaller projects:

1. Advanced approval for the program budget,
2. A predetermined budget and plans to fully commit a portion of the budget,
3. Pre-scheduling of future project solicitations, and
4. Proposed transactional enhancements.

Renewable resource technology within the range of 2 to 15 megawatts would be eligible for this program. The program would have a \$10 million budget over a three-year deployment. APS forecasts this program has the potential to provide approximately 200 gigawatt-hours annually once fully deployed.

The Company believes these budgetary and scheduling commitments will be an important indicator to the developer community of APS's intent to procure and install small renewable energy projects.

Staff recognizes that there is significant interest in feed-in tariffs. However, Staff believes that the current workshop activities related to feed-in tariffs should be allowed to run their course before utilities implement feed-in tariffs, even on a pilot basis, given the significant financial commitment even a one year pilot program would entail. Staff recommends against approval of the proposed feed-in tariff pilot program as part of the 2011 REST implementation plan for APS.

Distributed Energy

For the 2011 Plan, APS proposes to increase its PBI lifetime commitment by \$100 million to \$670 million.

The most significant changes to the APS REST Plan for 2011 relate to the phenomenal demand experienced in 2010 for residential distributed photovoltaic systems. Due to the unprecedented demand seen in 2010 and the anticipated continuation of residential demand in 2011, APS has proposed some major changes to its residential distributed energy program.

In 2010, when 75 percent of the APS 2010 residential incentive budget was allocated in the first quarter of 2010, the Commission stepped in, lowering the residential PV incentive from \$3 per watt to \$2.15 per watt and finally to \$1.95 per watt (Decision No. 71686, dated April 30, 2010).

The residential demand continued at an accelerated rate, causing the Commission to shift funds from other budget priorities to the residential program and to lower the residential PV incentive to \$1.75 per watt (Decision No. 71913, dated September 28, 2010). This incentive level reduction and an allocation from the 2011 budget were used to help APS reduce the queue of customers desiring residential incentives.

In Decision No. 71913, the Commission authorized APS to institute an incentive step-down mechanism that is triggered by the volume of residential systems installed under the program. The Commission also ordered that the last quarter of 2010 become Funding Cycle 1 of 2011 for the purpose of allocating a portion of the 2011 REST budget to residential projects waiting in the queue for REST incentives.

Based on the problems experienced in 2010 and feedback from the solar industry stakeholders, APS proposed a redesign of the incentive system. The redesign includes a clear delineation of proposed future reductions in incentives including pre-determined "step-downs", a specific allocation of funds for non-PV technologies, and specific funding cycles that would spread annual residential PV incentive funding over the entire budget year.

The automatic "step-down" mechanism for PV incentives would establish tranches of 1,200 grid-tied Distributed Energy applications, each providing incentives for approximately 8 MW of capacity.

Following the reservation of the first tranche at \$1.75 per watt, APS proposes that the residential grid-tied PV incentive be decreased by \$0.15 per watt to \$1.60 per watt, reaching \$1.45 per watt by the end of 2011. The first three tranches would have step-downs of \$0.15 per watt, followed by three tranches with \$0.10 per watt step-downs in future years. After the first six tranches, each additional tranche would step down \$0.05 per watt.

Also included in APS' proposed changes is a new "rapid reservation" proposal that would allow APS to confirm upon receipt all PV applications that request incentives of \$1.00 per watt or less.

In Decision Nos. 71686 and 71913, the Commission approved the funding of residential PV project applications received during the final quarter of 2010 with funds from the 2011 REST Plan. In its 2011 REST Plan, APS proposes to continue this approach where "For the purposes of this Plan, the first Funding Cycle of each Plan year occurs during the final quarter of the proceeding calendar year (e.g., Funding Cycle One of 2011 begins in October 2010)."

APS requests approval for the continuation of a specific allocation for non-PV residential projects. For 2011, this would be \$6 million and would be for technologies such as solar space heating, solar water heating, geothermal applications and other eligible residential DE technologies.

APS proposes removal of the incentive cap of 50 percent of total residential system cost, and for thermal applications, the cap requiring a minimum 15 percent customer contribution. APS claims that the caps are no longer needed.

APS is proposing a new Customized Incentives for Home Builders program. It would provide predictable incentive levels and longer reservation periods in order to address the needs of production and custom home builders. In 2011, APS proposes PV incentives of \$1.95 per watt and \$0.50 per kilowatt-hour for solar water heaters. To accommodate builders' three-year sale/build cycles, the PV incentives would be reduced by \$0.50 per watt after the first year, followed by \$0.25 and \$0.15 per watt reductions in following years. This program has a separate budget allocation.

The APS non-residential portion of the plan would increase its lifetime commitments to PBIs by \$100 million in 2011.

APS noticed in 2010 that non-residential project demand for "medium projects" was greater than the demand for "large projects." APS has proposed a change to allocate the 2011 funding more equally over various project sizes. The definition of "medium projects" would change to projects where the generator or inverter is rated at 200 kilowatts or less and "large

projects” would be where the generator or inverter is greater than 200 kilowatts. Currently, that definition changes at 100 kilowatts.

APS proposed to eliminate the “10/20” PBI contract. This contract provides 10 years of PBI payments with a 20-year REC agreement. APS believes that the risk of an advance payment for future production is no longer warranted.

Based on stakeholder feedback, APS has proposed the elimination of the 60 percent cap on non-residential incentives.

Staff has reviewed the Distributed Energy Programs and changes as proposed by APS.

First, Staff agrees with APS that some form of market-driven trigger should be used to lower residential PV incentives. The lack of such a mechanism was a major reason that APS experienced the boom-bust problems in the residential PV market in 2010, where demand outstripped available funding and REST Plan procedures needed to be fixed by the Commission in both April and September.

Staff has proposed an Alternative Budget Trigger Mechanism. APS had its first incentive problem in the First Quarter of 2010 when 75 percent of the money for residential incentives was committed in the first three months of the year. Unfortunately, the APS-proposed trigger would not avoid a similar budget problem in 2011.

Staff’s Alternative Budget Trigger Mechanism ties the reduction of incentives to budget expenditures in each quarter. If APS is ahead of schedule in committing PV incentive budget funds, the trigger will activate an incentive reduction. If the market is sluggish, no incentive reduction would take place. So, for instance, if 30 percent of the 2011 residential PV budget is committed on or before March 31, 2011, the incentive would drop by \$0.15 from \$1.75 to \$1.60. If only 25 percent of the budget is committed by March 31, 2011, the incentive would stay at \$1.75.

STAFF’S ALTERNATIVE BUDGET TRIGGER MECHANISM

	First Trigger	Second Trigger	Third Trigger	Fourth Trigger
Trigger	If 30% of 2011 PV Incentive Budget is committed by APS on or before March 31, 2011	If 52% of 2011 PV Incentive Budget is committed by APS on or before June 30, 2011	If 77% of 2011 PV Incentive Budget is committed by APS on or before September 30, 2011	If 100% of 2011 PV Incentive Budget is committed by APS on or before December 31, 2011
New Incentive Level	\$1.60 / Watt	\$1.50 / Watt	\$1.45 / Watt	\$1.40 / Watt

Staff recommends that the Commission replace the APS-proposed MW trigger mechanism for residential PV incentives with the Staff-proposed Alternative Budget Trigger Mechanism as described herein.

The APS proposal to make the first Funding Cycle of each Plan year occur during the final quarter of the preceding calendar year causes Staff some concern. That concern relates to the fact that the funding for the first Funding Cycle will likely not have been approved by the October 1 start of the quarter. Since the Commission normally does not hear or approve REST Plans until November or December of each year, the budget for the next year, incentive levels, and other program procedures will still be in question on October 1st. With that caution in mind, Staff does not see a better alternative that would avoid problems in the normally hectic fourth quarter and therefore recommends approval of this approach for 2011 only. Since this approach was already approved for 2010 in Decision No. 71913 in September 2010, by the time the Commission considers the APS 2012 REST Plan, it will have some results from 2010 and 2011 to review to determine whether it is appropriate to continue this mechanism.

Staff agrees with the APS designation of \$6 million in the budget for non-PV technologies. This is a good method to ensure that the residential program includes a variety of technologies, not just photovoltaics.

Staff recommends approval of the rapid reservation program offering \$1 per watt for PV incentives. This is an excellent mechanism to reduce the cost of renewable kWh for APS and its customers.

Staff disagrees with APS on the removal of the incentive cap of 50 percent of the total system costs for residential systems. If, as APS claims, the declining cost of PV will make the caps unnecessary, there is no harm leaving them in place. If, however, in the future the costs of PV drop farther than the incentive levels, there may be a need for such a cap. Staff sees no compelling reason to remove the cap. Staff recommends that the caps remain in place at 50 percent for both residential and non-residential.

Staff supports the Customized Incentives for Home Builders program proposed by APS. Staff believes this program will encourage the installation of renewable energy by home builders and in turn promote the Commission's efforts to ensure that APS continues to provide reliable service at just and reasonable rates. Staff recommends approval of the Home Builder program as proposed.

Staff agrees with APS' change to the definitions of "medium projects" and "large projects" by moving the dividing line from 100 kW to 200 kW. Staff also recommends that APS' request to eliminate the "10/20" PBI contract be approved. There is sufficient market interest for the 10, 15, and 20-year contracts for APS to meet its REST goals. The "10/20" PBI contract is too risky for both APS and its ratepayers.

Staff disagrees with APS' request to remove the 60 percent cap on non-residential incentives. If "...the incentive programs offered by the Company have become sufficiently

competitive to adequately drive available cost-reduction opportunities into projects receiving incentive funding” as APS claims, then there is no need to remove the cap. However, as indicated above, Staff recommends that the caps remain in place but be reduced to 50 percent for both residential and non-residential.

Staff disagrees with the APS reduction from \$44.1 million to \$34 million budgeted for residential up-front incentives. Although the reduction of incentive levels from \$3 per watt to \$1.75 per watt will have an impact on the market demand, there appears to be a continuing strong consumer demand for residential PV systems.

Staff believes that APS may have reduced the residential incentive budget too much. The economics of the residential PV incentive program are compelling. At an incentive of \$1.75 per watt, APS provides incentives of \$1,750 per kW of PV systems. Assuming that each kW of PV panels produce 1,700 kWh per year for 20 years, the cost to APS per delivered kWh is \$0.0514 per kWh. The calculations are shown in Table 4.

Table 4
APS’ Cost per kWh Resulting From Residential PV Incentives

<u>Incentive:</u>		
\$1.75 per watt	=	\$1,750 per kW
<u>System output:</u>		
		1,700 kWh / kW/ year
(1,700 kWh/year) times 20 years = 34,000 kWh		
<u>Cost per kWh:</u>		
\$1,750 divided by 34,000 kWh = \$0.0514 per kWh		

The economics of the residential PV incentives show that the residential kWh cost to APS is significantly lower (5.14 cents per kWh) than any other option in the REST Plan. The residential kWh cost to APS is much lower than the proposed Feed-in Tariff (at 19.5 cents per kWh), the proposed non-residential PBI incentives of 15.4 cents, 14.3 cents, or 13.8 cents or the cost per kWh from utility scale power purchase agreements that will likely range from 8 cents to 15 cents per kWh.

Faced with the favorable economics of residential PV incentives, Staff recommends an increase in the 2011 residential up-front incentives of \$5 million to total \$39 million in 2011 rather than the APS’ proposed \$34 million budget. Staff further recommends that one-half or \$2.5 million of this additional funding be set aside to fund the rapid reservation program. Any of the \$2.5 million in rapid reservation funds that have not been committed by APS by September 30, 2011, would revert to regular residential incentives for use on or after October 1, 2011.

This additional \$5 million in residential up-front incentives would come from a combination of the \$3.9 million reduction in the 2011 budget proposed by APS in its Supplemental Filing that was docketed on October 13, 2010, and an additional \$1.1 million reduction in three parts of the revised APS budget. Staff proposes a \$500,000 reduction in the proposed Schools and Government Program, an additional \$500,000 reduction in the Research, Development, Commercialization and Integration budget, and a \$100,000 reduction in the Marketing and Outreach budget. Staff believes that APS can incorporate these budget changes and still meet its REST requirements. The reduction in the Schools and Government Program can be accomplished by shifting \$500,000 of the 2011 portion of the three-year budget from 2011 to 2012. The \$500,000 reduction in the Research, Development, Commercialization and Outreach budget can be accomplished by APS' prioritization of projects proposed. Finally, with long waiting lines for residential and non-residential distributed systems, APS can afford a slight reduction in its Marketing and Outreach Program. Staff proposes that the total 2011 budget remain as originally proposed by APS at \$96.4 million, including the changes proposed by APS in its supplemental filing and the changes proposed by Staff in this memorandum.

Staff is concerned that APS has not reduced its non-residential PBI incentives in a manner commensurate with the reduction in cost of photovoltaic systems. Staff notes that in August of 2009, APS had enough non-residential projects in the queue to meet all of its non-residential DE requirements through 2011.

Since demand for non-residential grid-tied PV projects is still increasing, it appears that the incentives offered by APS are slightly higher than needed to meet APS' REST requirements. Therefore, Staff recommends that the APS proposed incentive for 10-year contracts be reduced from the proposed \$0.154 per kWh to \$0.14 per kWh. The proposed incentive of \$0.143 per kWh for 15-year contracts should be reduced to \$0.13 per kWh and the proposed \$0.138 per kWh for 20-year contracts should be reduced to \$0.125 per kWh.

Similarly, Staff recommends that the up-front incentive for small non-residential PV systems be reduced from \$2.25 per watt to \$1.75 per watt, which is comparable to the APS residential incentives.

The APS Distributed Energy Administration Plan

APS has proposed some modifications to its Distributed Energy Administration Plan. Due to Internal Revenue Service rulings, APS will be required to report incentive payments to customers on IRS Form 1099.

APS clarifies that the Rapid Reservation requests will not be counted as part of the maximum 600 reservations in the first three funding cycles, but will be accrued to the fourth funding cycle.

APS intends that customers' equipment meets the highest national safety and performance standards. APS is requiring new test standards for inverters, thin film solar modules, and crystalline silicon modules.

Solar daylighting projects will be exempt from submitting an energy savings and design report if the offsetting savings software that is used for the system design has been approved and validated by APS.

Non-residential active open-loop solar water heating systems will not be eligible for incentives, unless their technology or designs are proven to limit system degradation.

Solar providers will be required to provide APS with written notification of mergers or business name changes in order to facilitate the tracking of system installations.

APS has clarified the criteria for up-front incentives ("UFI") for both residential and nonresidential projects. Residential grid-tied PV UFIs are limited to 25 kilowatts. Non-residential projects with a total incentive of less than or equal to \$75,000 are only eligible for UFI incentives.

Staff has reviewed the proposed changes to the APS Distributed Energy Administration Plan. The clarification on the Rapid Reservations not counting toward the quarterly 600-reservation limits should answer some of the industry concerns about the program. APS' requirement for new test standards for equipment should help improve the quality of equipment in the incentive program. Other administrative changes to the DEAP appear to be appropriate. Staff recommends that the changes be approved.

Large Distributed Energy Plants

In August 2008, APS issued an RFP for Distributed Energy Resources ("DE RFP"). APS received 22 distinct proposals. Winners were selected and contracts were signed between APS and winning bidders. As part of the APS 2010 REST Plan, two new transaction types were approved:

1. Customer Aggregation model. This allows the developer to phase-in projects over several years.
2. REC and Energy Contract model. The developer sites a PV system at a customer's facility and APS would purchase all of the energy and associated RECs generated by the system. APS and the customers would have a separate agreement for the customer to purchase all of the energy from the DE system.

Recently, there has been extensive discussion about setting a size cap for large distributed projects.

Staff has considered the suggestion of placing size caps on large distributed renewable systems. On a going forward basis, for projects with contracts being signed in the future, this is a possibility. However, Staff believes that attempting to place caps on winners of RFPs with signed contracts may set a bad precedent.

Placing caps on future large distributed energy systems can be done. However, doing so may cause an increase to the delivered cost per kWh. By setting a cap, bidders will lose the economies of scale advantage and this will result in higher bids.

Should the Commission decide to place size caps on future distributed energy projects, Staff would recommend a cap of 10 MW per developer. This should allow some economies of scale, while limiting the portion of the budget that will be captured by a single applicant.

Snowflake Biomass

In 2008, APS contracted with a biomass power plant in Snowflake, Arizona to purchase 60 percent of the plant's output. Earlier this year, the plant filed Chapter 11 and the other partner, Salt River Project, terminated its power purchase agreement ("PPA").

To maintain APS' renewable portfolio, APS has entered into a one-year contract to purchase all of the plant's output. This represents an additional ten megawatts. The terms are consistent with the original 2008 power purchase agreement.

Innovative Renewable Energy Project Initiative

The Innovative Renewable Energy Project Initiative is designed to facilitate the installation of technologies that are not specifically cost-optimized for the DE market. For example, PV panels may be installed in innovative configurations that produce a wide array of site specific and potential community benefits, but may be more expensive.

Through the Innovative Renewable Energy Projects Initiative, APS would seek to procure renewable resource installations designed to demonstrate innovative deployment opportunities and innovative technologies. The Company proposes to execute this program with the balance of the \$25 million remaining from the approved lifetime commitment authorization for the DE RFP. Inasmuch as these projects are used to serve a specific customer, their energy will be applied to the appropriate DE target. If the resulting resources are not categorized as DE, their output will be applied to the overall APS renewable energy target.

Comments of Other Parties

The Arizona Solar Power Society ("ASPS") filed comments proposing increased spending on renewables. However, their backup calculations indicated a misunderstanding of how the REST Adjustor operates. ASPS presumed that all APS customers pay the maximum REST Surcharge, that is, the limits shown in Table 2. That is not correct.

Green Choice Solar filed two comment letters. The first letter disagreed with the APS Feed-In Tariff, and recommended a cap of 75 MW and a rate of \$0.25 per kWh. Staff disagrees with the Green Choice Feed-In Tariff proposal. Staff is recommending no Feed-In Tariff be instituted at this time, and a tariff with Green Choice's rate and capacity could be even more costly than APS' proposal, increasing customer costs by as much as \$32.5 million per year.

Green Choice's second letter criticized the shifting of PBI incentives from non-residential to residential customers. Green Choice recommended reservation fees to discourage applications for what it termed "dubious projects". Green Choice also recommended that the Schools and Government Program exclude any utility-ownership options. Staff believes an increased residential incentive budget is appropriate and as indicated above, the favorable economics of residential PV incentives warrant an increase in the 2011 residential up-front incentives of \$5 million as Staff recommends. Staff does not disagree that a reservation fee could discourage "dubious" proposals, but does not have a recommendation for a fee configuration at this time. Staff does not agree with Green Choice that excluding utility-owned projects in the Schools and Government Program is wise. Financing is difficult, and utility ownership offers customers a way to install a renewable system should other financing options be unavailable.

Arizona Discount Solar filed a letter with concerns about poor communication between utilities and solar companies, and the exhaustion of funds for incentives. Staff believes that Arizona Discount's concerns have been addressed by Commission Decision No. 71913, dated September 28, 2010, which clarified certain incentive payments. APS' actions will also help, e.g., the solar web page information (<http://arizonagoessolar.org/>), the "trigger" reduction mechanism, and the lower per-watt incentive payments. Staff expects these measures will allow the Arizona solar market to move at a more reasonable and manageable pace.

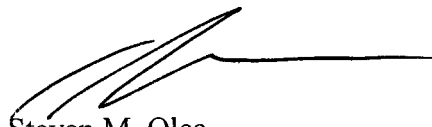
Recommendations

Because APS' plan allows it to meet the Commission-approved REST requirements in 2011, Staff recommends that APS' 2011 REST Implementation Plan be approved with the Staff's recommended program and budget adjustments as presented herein. This Plan cost is \$96.4 million, and it continues to meet full REST requirements.

Staff also makes the following recommendations:

1. That the RES Adjustor Rate be reset to \$0.0101320 per kWh with monthly caps of \$4.05 for residential customers, \$150.53 for non-residential customers, and \$451.60 for non-residential customers with demands of 3 MW or greater.
2. Approval of the APS request to make the First Funding Cycle of the 2012 Plan year occur during the final quarter of 2011. This would be a one-time only approval.
3. Staff recommends approval of the Staff Alternative Budget Trigger Mechanism for residential PV incentives.

4. Approval of the APS proposed set aside of \$6 million in the budget for non-PV technologies.
5. Approval of the rapid reservation program as proposed.
6. Approval of the PPA for the Snowflake biomass plant output.
7. That the APS feed-in tariff pilot program not be approved at this time. However, Staff believes that the current workshop activities related to feed-in tariffs should be allowed to run their course before utilities implement feed-in tariffs, even on a pilot basis, given the significant financial commitment even a one year pilot program would entail.
8. That the incentive caps be set at 50 percent of total system cost for both residential and non-residential systems.
9. Approval of the Customized Incentives for the Home Builders program as proposed.
10. Approval of APS changes to the definitions of medium and large projects in the non-residential PBI program.
11. Approval of APS' request to eliminate the "10/20" PBI contract.
12. Approval of an increase of \$5 million in residential up-front incentives; from \$34 million to \$39 million.
13. APS be ordered to file tariffs in compliance with the Decision in this case within 15 days of the effective date of that Decision. The filed tariffs would be for:
 - a) the proposed fees associated with the system interconnection process,
 - b) the Schools and Government proposed rates, and
 - c) the updated REST surcharge



Steven M. Olea
Director
Utilities Division

SMO:JJP:lhv\WVC

Originators: Ray Williamson
Jeffrey Pasquinelli

1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2 KRISTIN K. MAYES

Chairman

3 GARY PIERCE

Commissioner

4 PAUL NEWMAN

Commissioner

5 SANDRA D. KENNEDY

Commissioner

6 BOB STUMP

Commissioner

7

8

9 IN THE MATTER OF THE APPLICATIONS)
10 OF ARIZONA PUBLIC SERVICE)
11 COMPANY FOR APPROVAL OF)
12 SCHOOLS AND GOVERNMENT)
13 RENEWABLE PROGRAM AND FOR)
14 APPROVAL OF ITS RENEWABLE)
15 ENERGY STANDARD AND TARIFF)
16 IMPLEMENTATION PLAN FOR 2011)

DOCKET NOS. E-01345A-10-0166
 E-01345A-10-0262

DECISION NO. _____

ORDER

14

15 Open Meeting
16 November 22 and 23, 2010
17 Phoenix, Arizona

17 BY THE COMMISSION:

18 FINDINGS OF FACT

19 1. Arizona Public Service Company ("APS" or "Company") is engaged in providing
20 electric service within portions of Arizona, pursuant to authority granted by the Arizona
21 Corporation Commission

22 Background

23 2. On April 29, 2010, APS filed its application for approval of its schools and
24 government renewable energy program, pursuant to Decision No. 71448.

25 3. On July 1, 2010, APS filed its application for approval of its 2011 Implementation
26 Plan pursuant to the Renewable Energy Standard and Tariff ("REST") Rules. On July 26, 2010,
27 the two dockets were consolidated.

28 4. On October 13, 2010, APS submitted a Supplemental Filing.

The APS REST Implementation Plan 2011 to 2015

5. The APS REST Implementation Plan 2011 to 2015 is a five-year plan describing how APS intends to comply with the REST requirements. In a separate document, Attachment B of the APS application, APS has filed its Distributed Energy Administration Plan ("DEAP") describing how APS intends to meet the annual Distributed Renewable Energy Requirement.

6. APS had originally estimated that the cost for full compliance with the REST Rules would total \$96.4 million in 2011. This is an increase of about 11 percent over 2010's \$86.7 million. Budget details are given in Table 1 below.

7. Included in the Supplemental filing was an update on 2010 RES incentive funding and a proposal for improving the wholesale distribution interconnection process for renewable energy projects. The impact of increasing the number of renewable power interconnections on APS' distribution system affects safety, power quality, and reliability.

8. APS is proposing a system to improve and streamline the interconnection process by identifying the most viable projects. Three levels of increasingly detailed studies would be performed at the developer's request, and would identify technical issues earlier in the development process. APS would charge fees associated with requested studies, consistent with Commission Decision No. 69674. The first two optional studies, a Feasibility Study and a System Impact Study, would cost the developer \$15,000. The third study, a Facilities Study, would be required and cost the developer a fee of \$100 per hour with a \$55,000 deposit. All fees would be applied to the RES budget, offsetting resources required for the services. APS included modifications to the proposed APS RES adjustor, to reflect this.

9. Staff has reviewed the APS proposed Wholesale Distribution Interconnection Process. Staff has reviewed the process improvements and proposed fee schedules. Staff believes it is necessary for APS to analyze an interconnection's impact on its distribution system. The proposed fees for APS' engineering expertise are reasonable. However, new fees should be on a Tariff Schedule.

10. In the Supplemental Filing, APS recalculated the timing for expected start-up of various non-residential performance based incentive ("PBI") projects, Powerful Communities

1 projects, and AZ Sun projects. This recalculation resulted in a downward revision of APS' budget
 2 estimates for 2011, lowering the APS budget request for 2011 by \$3.9 million. This resulted in a
 3 revised budget request of \$92.5 million compared to original proposed budget amount of \$96.4
 4 million.

5 11. As part of the Supplemental Filing, APS has revised the Schools and Government
 6 Rate Schedule in order to allow the schedule to be used in conjunction with a new schools time-of-
 7 use rate schedule that was approved by the Commission in August 2010.

8 12. Finally, in the Supplemental Filing, APS submitted revisions to the Distributed
 9 Energy Administration Plan. Included was a clarification that Rapid Reservation requests will not
 10 be counted as part of the maximum 600 reservations that would be accepted in the first three
 11 funding cycles. The Rapid Reservation funds instead would come from the fourth funding cycle.

12 13. APS is now requesting increases in its adjustor rate to collect \$86.5 million; \$6.0
 13 million is collected in base rates to reach the total of \$92.5 million. This budget is detailed in
 14 Table 1. Staff is proposing a budget of \$96.4 million.

15 14. REST adjustor rates would increase about 17 percent and are shown below in
 16 Table 2.

17 15. Table 3 presents a variety of typical Customer types with the monthly RES
 18 surcharge amounts each would pay.

19 **Table 1**
APS 2011 REST Budget

<i>Line No</i>	<i>\$ Millions</i>	<i>2010</i>	<i>APS Original</i>	<i>APS Adjusted</i>	<i>Staff Proposed</i>
1	<u>Renewable Generation</u>				
2	Purchases and Generation	8.5	17.0	18.8	18.8
3	Administration	1.3	1.5	1.5	1.5
4	Implementation	1.1	1.5	1.5	1.5
5	Total Renewable Generation Contracts and O/M	10.9	20.0	21.8	21.8
6	Estimated Green Choice/Rollover Offset Credit	-0.4	-3.8	-0.6	-0.6
7	Total Renewable Generation	10.5	16.2	21.2	21.2
8	<u>Customer-Sited Distributed Energy</u>				
9	<u>Existing Contracts and Commitments</u>				
10	Distributed Energy RFP		1.1	1.1	1.1
11	Innovative Technologies		0.3	0.3	0.3
12	Existing Production-based Incentives	16.6	15.3	7.6	7.6

13	Flagstaff Community Power Project		0.4	0.4	0.4
14	Wholesale Distributed Energy		0.2	0.2	0.2
15	ARRA Projects/Incentives		1.2	1.2	1.2
16	2010 Residential Incentive Commitment		0.9	1.7	1.7
17	Total Existing Contracts and Commitments	16.6	19.4	12.5	12.5
19	<i>New Incentives and Commitments</i>				
20	Residential Up-front	44.1	34.0	34.0	39.0
21	Schools and Government Buildings		7.3	7.3	6.8
22	Non-Residential Up-front	2.0	2.0	2.0	2.0
23	Production Based Incentives		2.1	0.3	0.3
24	Powerful Communities		0.4	0.2	0.2
25	Total New Incentives and Commitment	46.6	46.3	44.3	48.8
26	Total Incentives and Commitments	63.2	65.7	56.8	61.3
27	<u>Non-Incentive Distributed Energy</u>				
28	Customer Self-Directed	0	0	0	0
30	Administration	1.6	1.4	1.4	1.4
31	Implementation	3.1	3.7	3.7	3.7
32	Information Technology	1.5	2.0	2.0	2.0
33	Marketing & Outreach	4.8	5.4	5.4	5.3
34	Total Non-Incentive Distributed Energy	11.0	12.5	12.5	12.4
35	Total Customer Sited Distributed Energy (line 26 + line 34)	74.2	78.2	69.3	73.7
36	Research, Development, Commercialization, & Integration	2.0	2.0	2.0	1.5
37					
38	Total RES Budget	86.7	96.4	92.5	96.4

Table 2
APS 2011 REST Adjustor Rates

	<u>2010</u>	<u>APS Original</u>	<u>APS Adjusted</u>	<u>Staff Proposed</u>
Rate per kWh	\$0.0086620	\$0.0101320	\$0.0096630	\$0.0101320
Residential Monthly Cap	\$3.46	\$4.05	\$3.87	\$4.05
Small Non-residential Monthly Cap	\$128.70	\$150.53	\$143.56	\$150.53
Large Non-residential Monthly Cap	\$386.10	\$451.60	\$430.67	\$451.60

Table 3
Customer Impact of Proposed REST Adjustor Rates

		<i>kWh per Month</i>	<i>2010</i>	<i>APS Original</i>	<i>APS Adjusted</i>	<i>Staff Proposed</i>
Customer Types and Monthly Costs						
1	Residence	>= 400	\$3.46	\$4.05	\$3.87	\$4.05
2	Dentist Office	2,000	\$17.32	\$20.26	\$19.33	\$20.26
3	Hairstylist	3,900	\$33.78	\$39.51	\$37.69	\$39.51
4	Department Store	170,000	\$128.70	\$150.53	\$143.56	\$150.53
5	Retail Video Store	14,400	\$124.73	\$145.90	\$139.15	\$145.90
6	Large Hotel	1,067,100	\$128.70	\$150.53	\$143.56	\$150.53
7	Large Building Supply/Hardware	346,500	\$128.70	\$150.53	\$143.56	\$150.53
8	Hotel/Motel	27,960	\$128.70	\$150.53	\$143.56	\$150.53
9	Fast Food	60,160	\$128.70	\$150.53	\$143.56	\$150.53
10	Large High Rise Office Bldg	1,476,100	\$128.70	\$150.53	\$143.56	\$150.53
11	Supermarket	233,600	\$128.70	\$150.53	\$143.56	\$150.53
12	Convenience Store	20,160	\$128.70	\$150.53	\$143.56	\$150.53
13	Hospital (< 3 MW)	1,509,600	\$128.70	\$150.53	\$143.56	\$150.53
14	Hospital (> 3 MW)	2,700,000	\$386.10	\$451.60	\$430.67	\$451.60
15	Copper Mine	72,000,000	\$386.10	\$451.60	\$430.67	\$451.60
16	Mall (>3MW)	1,627,100	\$386.10	\$451.60	\$430.67	\$451.60

Renewable Generation

16. For year 2011, APS indicates that it would own and operate approximately 6 MW of solar capacity. In addition, APS has entered into power purchase agreements for 228 MW of wind, geothermal, and biomass/biogas renewable generation capacity, and expects 20 MW from its Small Generation Request for Proposal ("RFP") and 33 MW from AZ Sun projects. This totals 287 MW of renewable generation as described in detail in Exhibit 3B of Attachment A in the APS Supplemental filing.

17. The expected annual MWh of generation from existing contracts and planned generation is shown in Exhibit 3A of Attachment A of the APS plan. The estimate for existing renewable generation is 851,805 MWh in 2011.

...

1 **Schools and Government Program**

2 18. Decision No. 71275 requires APS to offer proposals which could increase
3 distributed energy ("DE") participation for governmental and schools customers. APS will offer
4 these customers performance-based incentives for installation of qualifying non-residential RES
5 facilities as part of a Schools and Governmental Program.

6 19. A Schools and Government Program was filed on April 29, 2010 (E-01345A-10-
7 0166). With that filing, APS is seeking approval of a new program for on-site renewable energy
8 for schools and governmental institutions that would substantially reduce or eliminate up-front
9 costs for solar energy.

10 20. To eliminate up-front costs that would normally be incurred by schools or
11 governmental institutions when installing solar facilities, APS is proposing three customer options
12 to eliminate or reduce up-front costs for schools and governmental institutions:

- 13 A) third-party ownership
14 B) utility-ownership option
15 C) solar daylighting bank financing option

16 21. With the Third-Party Ownership option, the third-party owners traditionally require
17 no up-front payment from the customer, instead the customer pays the third-party owner for the
18 lease of the system equipment and the customer benefits from the energy produced by the on-site
19 PV system.

20 22. For the Utility Ownership option, APS is proposing to make available a utility
21 ownership option for the proposed Schools and Government Program. To maximize opportunities
22 for solar installers and developers, no more than one-half of the installed PV capacity would be
23 eligible under the utility-ownership option. APS proposes PV system installations utilizing the
24 same utility ownership arrangement that is being offered in the recently approved Community
25 Power Project - Flagstaff Pilot program. PV systems would be connected directly to the
26 distribution grid on the customer's property, and the customer would be billed for a portion of their
27 usage equivalent to the output of the PV system, with a specific rate designed to reflect the benefits
28 of a customer-owned renewable resource, i.e., a proposed School and Government Solar Program

1 Rider Rate Schedule. This solar charge would remain unchanged for the twenty-year term of the
2 rate schedule.

3 23. Renewable energy from the utility-owned solar systems would not count toward the
4 RES distributed energy requirements; rather, they would be applied to the Company's overall RES
5 requirement. APS is proposing that the cost of ownership (or revenue requirement) for this option
6 would be recovered through the RES adjustor until the investment is included in base rates or other
7 recovery mechanism.

8 24. In the Solar Daylighting Project Financing option, the costs associated with solar
9 daylighting installations are significantly less than that of PV and solar thermal installation costs
10 and school districts and governmental institutions have expressed a preference to purchase and
11 own these systems. For customers interested in a financing option to install solar daylighting, APS
12 will partner with National Bank of Arizona to offer customers an option that eliminates up-front
13 cost. Solar daylighting projects under the proposed Schools and Government Program would be
14 eligible for a five to seven year operating lease, with the option to purchase the system at fair
15 market value at the end of the lease term.

16 25. In its Supplemental Filing, APS revised the Schools and Government Rate Schedule
17 ("SGSP"). In Decision No. 71871 the Commission adopted a new optional time-of-use ("TOU")
18 rate applicable to K- 12 schools, which will provide daily and seasonal price signals to encourage
19 load reductions during peak periods. In this docket, APS has revised the Schools and Government
20 Rate Schedule (Exhibit D) to incorporate the changes necessary to allow the schedule to be used in
21 conjunction with the new schools TOU rate schedules.

22 26. Rate Schedule SGSP is shown in Exhibit H of APS' filing. As indicated, its design
23 is the same as the Community Power Project - Flagstaff Pilot program, with a solar charge ranging
24 from 7.3 to 9.3 ¢/kW, depending on the base service retail rate schedule. For School or
25 Governmental customers on time-of-use rates, the solar energy would be netted against on-peak,
26 shoulder-peak, or off-peak time periods according to an allocation based on typical usage. The
27 solar charge would remain unchanged for the twenty-year term of the rate schedule.

28 ...

27. Staff has reviewed the Revised Rate Schedule SGSP. Staff's analysis finds that SGSP is a properly-designed rate which allows the benefits of renewable energy to flow back to the customers in a reasonable manner.

Feed-In Tariff Programs

28. In January 2010, the Commission issued a Notice of Inquiry to solicit input on specific issues related to developing a potential Feed-In Tariff ("FIT") program, which is a transaction mechanism that is designed to encourage the targeted deployment of renewable energy resources. Under a FIT, an electric utility pays a renewable energy developer for both energy and renewable energy credits ("RECs") at an agreed-upon and sometimes predetermined rate for an extended number of years under a standardized commercial agreement.

29. Well-designed FIT policies could offer additional methods for promoting the development of renewable energy resources. APS is proposing two programs aimed at different renewable energy market segments that embrace FIT principals: 1) Powerful Communities, a wholesale DE FIT program that targets customer groups that have had limited participation in RES programs; and 2) a Small Generator Standard Offer Program that would provide energy credited towards APS' renewable generation requirements. Each of the programs is designed to extend over a three-year period.

Powerful Communities (Wholesale Distributed Energy FIT)

30. The proposed Powerful Communities FIT program targets market segments that currently have a more difficult time accessing the incentive funding through the current RES programs, specifically low-income housing entities, homeowner associations, multi-tenant facilities (residential and commercial), and not-for-profit charitable organizations. PV facilities that are between 30 kilowatts and 200 kilowatts and are planned to be operational within 12 months would be eligible for this program. APS is proposing that the program be limited to 2 megawatts of total annual procurement in each year of the program, for a total of 6 megawatts. This limit to the program size is proposed as a way to manage the amount of customer-subsidized developer incentives paid annually. Participants will be awarded on a first-come, first-served basis. The Company is proposing a standard fixed price offer for the Powerful Communities FIT

1 Program of \$0.195/kilowatt-hour for the production output of the system under a 20-year
2 agreement. The program has an estimated annual cost of \$375,000, and a lifetime commitment for
3 these 20-year contracts of approximately \$22.5 million.

4 ***Small Generator Standard Offer Program***

5 31. The Small Generator Standard Offer would focus on four aspects of smaller
6 projects:

- 7 A. Advanced approval for the program budget,
- 8 B. A predetermined budget and plans to fully commit a portion of the budget,
- 9 C. Pre-scheduling of future project solicitations, and
- 10 D. Proposed transactional enhancements.

11 32. Renewable resource technology within the range of 2 to 15 megawatts would be
12 eligible for this program. The program would have a \$10 million budget over a three-year
13 deployment. APS forecasts this program has the potential to provide approximately 200 gigawatt-
14 hours annually once fully deployed.

15 33. The Company believes these budgetary and scheduling commitments will be an
16 important indicator to the developer community of APS' intent to procure and install small
17 renewable energy projects.

18 34. Staff recognizes that there is significant interest in feed-in tariffs. However, Staff
19 believes that the current workshop activities related to feed-in tariffs should be allowed to run their
20 course before utilities implement feed-in tariffs, even on a pilot basis, given the significant
21 financial commitment even a one year pilot program would entail. Staff recommends against
22 approval of the proposed feed-in tariff pilot program as part of the 2011 REST implementation
23 plan for APS. However, if the Commission wishes to approve a FIT pilot program, Staff
24 recommends approving the APS proposal with the following modification: the standard price
25 offer should be a maximum of \$0.195/kWh, i.e., APS should be allowed to enter into a FIT of less
26 than \$0.195/kWh.

27 **Distributed Energy**

28 35. For the 2011 Plan, APS proposes to increase its PBI lifetime commitment by \$100
million to \$670 million.

1 36. The most significant changes to the APS REST Plan for 2011 relate to the
2 phenomenal demand experienced in 2010 for residential distributed photovoltaic systems. Due to
3 the unprecedented demand seen in 2010 and the anticipated continuation of residential demand in
4 2011, APS has proposed some major changes to its residential distributed energy program.

5 37. In 2010, when 75 percent of the APS 2010 residential incentive budget was
6 allocated in the first quarter of 2010, the Commission stepped in, lowering the residential PV
7 incentive from \$3 per watt to \$2.15 per watt and finally to \$1.95 per watt (Decision No. 71686,
8 dated April 30, 2010).

9 38. The residential demand continued at an accelerated rate, causing the Commission to
10 shift funds from other budget priorities to the residential program and to lower the residential PV
11 incentive to \$1.75 per watt (Decision No. 71913, dated September 28, 2010). This incentive level
12 reduction and an allocation from the 2011 budget were used to help APS reduce the queue of
13 customers desiring residential incentives.

14 39. In Decision No. 71913, the Commission authorized APS to institute an incentive
15 step-down mechanism that is triggered by the volume of residential systems installed under the
16 program. The Commission also ordered that the last quarter of 2010 become Funding Cycle 1 of
17 2011 for the purpose of allocating a portion of the 2011 REST budget to residential projects
18 waiting in the queue for REST incentives.

19 40. Based on the problems experienced in 2010 and feedback from the solar industry
20 stakeholders, APS proposed a redesign of the incentive system. The redesign includes a clear
21 delineation of proposed future reductions in incentives including pre-determined "step-downs", a
22 specific allocation of funds for non-PV technologies, and specific funding cycles that would spread
23 annual residential PV incentive funding over the entire budget year.

24 41. The automatic "step-down" mechanism for PV incentives would establish tranches
25 of 1,200 grid-tied Distributed Energy applications, each providing incentives for approximately 8
26 MW of capacity.

27 42. Following the reservation of the first tranche at \$1.75 per watt, APS proposes that
28 the residential grid-tied PV incentive be decreased by \$0.15 per watt to \$1.60 per watt, reaching

1 \$1.45 per watt by the end of 2011. The first three tranches would have step-downs of \$0.15 per
2 watt, followed by three tranches with \$0.10 per watt step-downs in future years. After the first six
3 tranches, each additional tranche would step down \$0.05 per watt.

4 43. Also included in APS' proposed changes is a new "rapid reservation" proposal that
5 would allow APS to confirm upon receipt all PV applications that request incentives of \$1.00 per
6 watt or less.

7 44. In Decision Nos. 71686 and 71913, the Commission approved the funding of
8 residential PV project applications received during the final quarter of 2010 with funds from the
9 2011 REST Plan. In its 2011 REST Plan, APS proposes to continue this approach where "For the
10 purposes of this Plan, the first Funding Cycle of each Plan year occurs during the final quarter of
11 the proceeding calendar year (e.g., Funding Cycle One of 2011 begins in October 2010)."

12 45. APS requests approval for the continuation of a specific allocation for non-PV
13 residential projects. For 2011, this would be \$6 million and would be for technologies such as
14 solar space heating, solar water heating, geothermal applications and other eligible residential DE
15 technologies.

16 46. APS proposes removal of the incentive cap of 50 percent of total residential system
17 cost, and for thermal applications, the cap requiring a minimum 15 percent customer contribution.
18 APS claims that the caps are no longer needed.

19 47. APS is proposing a new Customized Incentives for Home Builders program. It
20 would provide predictable incentive levels and longer reservation periods in order to address the
21 needs of production and custom home builders. In 2011, APS proposes PV incentives of \$1.95 per
22 watt and \$0.50 per kilowatt-hour for solar water heaters. To accommodate builders' three-year
23 sale/build cycles, the PV incentives would be reduced by \$0.50 per watt after the first year,
24 followed by \$0.25 and \$0.15 per watt reductions in following years. This program has a separate
25 budget allocation.

26 48. The APS non-residential portion of the plan would increase its lifetime
27 commitments to PBIs by \$100 million in 2011.

28

1 49. APS noticed in 2010 that non-residential project demand for "medium projects"
2 was greater than the demand for 'large projects." APS has proposed a change to allocate the 2011
3 funding more equally over various project sizes. The definition of "medium projects" would
4 change to projects where the generator or inverter is rated at 200 kilowatts or less and "large
5 projects" would be where the generator or inverter is greater than 200 kilowatts. Currently, that
6 definition changes at 100 kilowatts.

7 50. APS proposed to eliminate the "10/20" PBI contract. This contract provides 10
8 years of PBI payments with a 20-year REC agreement. APS believes that the risk of an advance
9 payment for future production is no longer warranted.

10 51. Based on stakeholder feedback, APS has proposed the elimination of the 60 percent
11 cap on non-residential incentives.

12 52. Staff has reviewed the Distributed Energy Programs and changes as proposed by
13 APS.

14 53. First, Staff agrees with APS that some form of market-driven trigger should be used
15 to lower residential PV incentives. The lack of such a mechanism was a major reason that APS
16 experienced the boom-bust problems in the residential PV market in 2010, where demand
17 outstripped available funding and REST Plan procedures needed to be fixed by the Commission in
18 both April and September.

19 54. Staff has proposed an Alternative Budget Trigger Mechanism. APS had its first
20 incentive problem in the First Quarter of 2010 when 75 percent of the money for residential
21 incentives was committed in the first three months of the year. Unfortunately, the APS-proposed
22 trigger would not avoid a similar budget problem in 2011.

23 55. Staff's Alternative Budget Trigger Mechanism ties the reduction of incentives to
24 budget expenditures in each quarter. If APS is ahead of schedule in committing PV incentive
25 budget funds, the trigger will activate an incentive reduction. If the market is sluggish, no
26 incentive reduction would take place. So, for instance, if 30 percent of the 2011 residential PV
27 budget is committed on or before March 31, 2011, the incentive would drop by \$0.15 from \$1.75
28

to \$1.60. If only 25 percent of the budget is committed by March 31, 2011, the incentive would stay at \$1.75.

STAFF'S ALTERNATIVE BUDGET TRIGGER MECHANISM

	First Trigger	Second Trigger	Third Trigger	Fourth Trigger
Trigger	If 30% of 2011 PV Incentive Budget is committed by APS on or before March 31, 2011	If 52% of 2011 PV Incentive Budget is committed by APS on or before June 30, 2011	If 77% of 2011 PV Incentive Budget is committed by APS on or before September 30, 2011	If 100% of 2011 PV Incentive Budget is committed by APS on or before December 31, 2011
New Incentive Level	\$1.60 / Watt	\$1.50 / Watt	\$1.45 / Watt	\$1.40 / Watt

56. Staff recommends that the Commission replace the APS-proposed MW trigger mechanism for residential PV incentives with the Staff-proposed Alternative Budget Trigger Mechanism as described herein.

57. The APS proposal to make the first Funding Cycle of each Plan year occur during the final quarter of the preceding calendar year causes Staff some concern. That concern relates to the fact that the funding for the first Funding Cycle will likely not have been approved by the October 1 start of the quarter. Since the Commission normally does not hear or approve REST Plans until November or December of each year, the budget for the next year, incentive levels, and other program procedures will still be in question on October 1st. With that caution in mind, Staff does not see a better alternative that would avoid problems in the normally hectic fourth quarter and therefore recommends approval of this approach for 2011 only. Since this approach was already approved for 2010 in Decision No. 71913 in September 2010, by the time the Commission considers the APS 2012 REST Plan, it will have some results from 2010 and 2011 to review to determine whether it is appropriate to continue this mechanism.

58. Staff agrees with the APS designation of \$6 million in the budget for non-PV technologies. This is a good method to ensure that the residential program includes a variety of technologies, not just photovoltaics.

1 59. Staff recommends approval of the rapid reservation program offering \$1 per watt
2 for PV incentives. This is an excellent mechanism to reduce the cost of renewable kWh for APS
3 and its customers.

4 60. Staff disagrees with APS on the removal of the incentive cap of 50 percent of the
5 total system costs for residential systems. If, as APS claims, the declining cost of PV will make
6 the caps unnecessary, there is no harm leaving them in place. If, however, in the future the costs
7 of PV drop farther than the incentive levels, there may be a need for such a cap. Staff sees no
8 compelling reason to remove the cap. Staff recommends that the caps remain in place at 50
9 percent for both residential and non-residential.

10 61. Staff supports the Customized Incentives for Home Builders program proposed by
11 APS. Staff believes this program will encourage the installation of renewable energy by home
12 builders and in turn promote the Commission's efforts to ensure that APS continues to provide
13 reliable service at just and reasonable rates. Staff recommends approval of the Home Builder
14 program as proposed.

15 62. Staff agrees with APS' change to the definitions of "medium projects" and "large
16 projects" by moving the dividing line from 100 kW to 200 kW. Staff also recommends that APS'
17 request to eliminate the "10/20" PBI contract be approved. There is sufficient market interest for
18 the 10, 15, and 20-year contracts for APS to meet its REST goals. The "10/20" PBI contract is too
19 risky for both APS and its ratepayers.

20 63. Staff disagrees with APS' request to remove the 60 percent cap on non-residential
21 incentives. If "...the incentive programs offered by the Company have become sufficiently
22 competitive to adequately drive available cost-reduction opportunities into projects receiving
23 incentive funding" as APS claims, then there is no need to remove the cap. However, as indicated
24 above, Staff recommends that the caps remain in place but be reduced to 50 percent for both
25 residential and non-residential.

26 64. Staff disagrees with the APS reduction from \$44.1 million to \$34 million budgeted
27 for residential up-front incentives. Although the reduction of incentive levels from \$3 per watt to
28

1 \$1.75 per watt will have an impact on the market demand, there appears to be a continuing strong
2 consumer demand for residential PV systems.

3 65. Staff believes that APS may have reduced the residential incentive budget too
4 much. The economics of the residential PV incentive program are compelling. At an incentive of
5 \$1.75 per watt, APS provides incentives of \$1,750 per kW of PV systems. Assuming that each
6 kW of PV panels produce 1,700 kWh per year for 20 years, the cost to APS per delivered kWh is
7 \$0.0514 per kWh. The calculations are shown in Table 4.

8 **Table 4**
9 **APS' Cost per kWh Resulting From Residential PV Incentives**

10 Incentive:

11 \$1.75 per watt = \$1,750 per kW

12 System output:

13 1,700 kWh / kW/ year
14 (1,700 kWh/year) times 20 years = 34,000 kWh

15 Cost per kWh:

16 \$1,750 divided by 34,000 kWh = \$0.0514 per kWh

17 66. The economics of the residential PV incentives show that the residential kWh cost
18 to APS is significantly lower (5.14 cents per kWh) than any other option in the REST Plan. The
19 residential kWh cost to APS is much lower than the proposed Feed-in Tariff (at 19.5 cents per
20 kWh), the proposed non-residential PBI incentives of 15.4 cents, 14.3 cents, or 13.8 cents or the
21 cost per kWh from utility scale power purchase agreements that will likely range from 8 cents to
22 15 cents per kWh.

23 67. Faced with the favorable economics of residential PV incentives, Staff recommends
24 an increase in the 2011 residential up-front incentives of \$5 million to total \$39 million in 2011
25 rather than the APS' proposed \$34 million budget. Staff further recommends that one-half or \$2.5
26 million of this additional funding be set aside to fund the rapid reservation program. Any of the
27 \$2.5 million in rapid reservation funds that have not been committed by APS by September 30,
28 2011, would revert to regular residential incentives for use on or after October 1, 2011.

1 68. This additional \$5 million in residential up-front incentives would come from a
2 combination of the \$3.9 million reduction in the 2011 budget proposed by APS in its Supplemental
3 Filing that was docketed on October 13, 2010, and an additional \$1.1 million reduction in three
4 parts of the revised APS budget. Staff proposes a \$500,000 reduction in the proposed Schools and
5 Government Program, an additional \$500,000 reduction in the Research, Development,
6 Commercialization and Integration budget, and a \$100,000 reduction the Marketing and Outreach
7 budget. Staff believes that APS can incorporate these budget changes and still meet its REST
8 requirements. The reduction in the Schools and Government Program can be accomplished by
9 shifting \$500,000 of the 2011 portion of the three-year budget from 2011 to 2012. The \$500,000
10 reduction in the Research, Development, Commercialization and Outreach budget can be
11 accomplished by APS' prioritization of projects proposed. Finally, with long waiting lines for
12 residential and non-residential distributed systems, APS can afford a slight reduction in its
13 Marketing and Outreach Program. Staff proposes that the total 2011 budget remain as originally
14 proposed by APS at \$96.4 million, including the changes proposed by APS in its supplemental
15 filing and the changes proposed by Staff in this memorandum.

16 69. Staff is concerned that APS has not reduced its non-residential PBI incentives in a
17 manner commensurate with the reduction in cost of photovoltaic systems. Staff notes that in
18 August of 2009, APS had enough non-residential projects in the queue to meet all of its non-
19 residential DE requirements through 2011.

20 70. Since demand for non-residential grid-tied PV projects is still increasing, it appears
21 that the incentives offered by APS are slightly higher than needed to meet APS' REST
22 requirements. Therefore, Staff recommends that the APS proposed incentive for 10-year contracts
23 be reduced from the proposed \$0.154 per kWh to \$0.14 per kWh. The proposed incentive of
24 \$0.143 per kWh for 15-year contracts should be reduced to \$0.13 per kWh and the proposed
25 \$0.138 per kWh for 20-year contracts should be reduced to \$0.125 per kWh.

26 71. Similarly, Staff recommends that the up-front incentive for small non-residential
27 PV systems be reduced from \$2.25 per watt to \$1.75 per watt, which is comparable to the APS
28 residential incentives.

1 **The APS Distributed Energy Administration Plan**

2 72. APS has proposed some modifications to its Distributed Energy Administration
3 Plan. Due to Internal Revenue Service rulings, APS will be required to report incentive payments
4 to customers on IRS Form 1099.

5 73. APS clarifies that the Rapid Reservation requests will not be counted as part of the
6 maximum 600 reservations in the first three funding cycles, but will be accrued to the fourth
7 funding cycle.

8 74. APS intends that customers' equipment meets the highest national safety and
9 performance standards. APS is requiring new test standards for inverters, thin film solar modules,
10 and crystalline silicon modules.

11 75. Solar daylighting projects will be exempt from submitting an energy savings and
12 design report if the offsetting savings software that is used for the system design has been
13 approved and validated by APS.

14 76. Non-residential active open-loop solar water heating systems will not be eligible for
15 incentives, unless their technology or designs are proven to limit system degradation.

16 77. Solar providers will be required to provide APS with written notification of mergers
17 or business name changes in order to facilitate the tracking of system installations.

18 78. APS has clarified the criteria for up-front incentives ("UFI") for both residential
19 and nonresidential projects. Residential grid-tied PV UFIs are limited to 25 kilowatts. Non-
20 residential projects with a total incentive of less than or equal to \$75,000 are only eligible for UFI
21 incentives.

22 79. Staff has reviewed the proposed changes to the APS Distributed Energy
23 Administration Plan. The clarification on the Rapid Reservations not counting toward the
24 quarterly 600-reservation limits should answer some of the industry concerns about the program.
25 APS' requirement for new test standards for equipment should help improve the quality of
26 equipment in the incentive program. Other administrative changes to the DEAP appear to be
27 appropriate. Staff recommends that the changes be approved.

28 ...

Large Distributed Energy Plants

80. In August 2008, APS issued an RFP for Distributed Energy Resources ("DE RFP"). APS received 22 distinct proposals. Winners were selected and contracts were signed between APS and winning bidders. As part of the APS 2010 REST Plan, two new transaction types were approved:

A. Customer Aggregation model. This allows the developer to phase-in projects over several years.

B. REC and Energy Contract model. The developer sites a PV system at a customer's facility and APS would purchase all of the energy and associated RECs generated by the system. APS and the customers would have a separate agreement for the customer to purchase all of the energy from the DE system.

81. Recently, there has been extensive discussion about setting a size cap for large distributed projects.

82. Staff has considered the suggestion of placing size caps on large distributed renewable systems. On a going forward basis, for projects with contracts being signed in the future, this is a possibility. However, Staff believes that attempting to place caps on winners of RFPs with signed contracts may set a bad precedent.

83. Placing caps on future large distributed energy systems can be done. However, doing so may cause an increase to the delivered cost per kWh. By setting a cap, bidders will lose the economies of scale advantage and this will result in higher bids.

84. Should the Commission decide to place size caps on future distributed energy projects, Staff would recommend a cap of 10 MW per developer. This should allow some economies of scale, while limiting the portion of the budget that will be captured by a single applicant.

Snowflake Biomass

85. In 2008, APS contracted with a biomass power plant in Snowflake, Arizona to purchase 60 percent of the plant's output. Earlier this year, the plant filed Chapter 11 and the other partner, Salt River Project, terminated its power purchase agreement ("PPA").

1 86. To maintain APS' renewable portfolio, APS has entered into a one-year contract to
2 purchase all of the plant's output. This represents an additional ten megawatts. The terms are
3 consistent with the original 2008 power purchase agreement.

4 **Innovative Renewable Energy Project Initiative**

5 87. The Innovative Renewable Energy Project Initiative is designed to facilitate the
6 installation of technologies that are not specifically cost-optimized for the DE market. For
7 example, PV panels may be installed in innovative configurations that produce a wide array of site
8 specific and potential community benefits, but may be more expensive.

9 88. Through the Innovative Renewable Energy Projects Initiative, APS would seek to
10 procure renewable resource installations designed to demonstrate innovative deployment
11 opportunities and innovative technologies. The Company proposes to execute this program with
12 the balance of the \$25 million remaining from the approved lifetime commitment authorization for
13 the DE RFP. Inasmuch as these projects are used to serve a specific customer, their energy will be
14 applied to the appropriate DE target. If the resulting resources are not categorized as DE, their
15 output will be applied to the overall APS renewable energy target.

16 **Comments of Other Parties**

17 89. The Arizona Solar Power Society ("ASPS") filed comments proposing increased
18 spending on renewables. However, their backup calculations indicated a misunderstanding of how
19 the REST Adjustor operates. ASPS presumed that all APS customers pay the maximum REST
20 Surcharge, that is, the limits shown in Table 2. That is not correct.

21 90. Green Choice Solar filed two comment letters. The first letter disagreed with the
22 APS Feed-In Tariff, and recommended a cap of 75 MW and a rate of \$0.25 per kWh. Staff
23 disagrees with the Green Choice Feed-In Tariff proposal. Staff is recommending no Feed-In Tariff
24 be instituted at this time, and a tariff with Green Choice's rate and capacity could be even more
25 costly than APS' proposal, increasing customer costs by as much as \$32.5 million per year.

26 91. Green Choice's second letter criticized the shifting of PBI incentives from non-
27 residential to residential customers. Green Choice recommended reservation fees to discourage
28 applications for what it termed "dubious projects". Green Choice also recommended that the

1 Schools and Government Program exclude any utility-ownership options. Staff believes an
2 increased residential incentive budget is appropriate and as indicated above, the favorable
3 economics of residential PV incentives warrant an increase in the 2011 residential up-front
4 incentives of \$5 million as Staff recommends. Staff does not disagree that a reservation fee could
5 discourage "dubious" proposals, but does not have a recommendation for a fee configuration at
6 this time. Staff does not agree with Green Choice that excluding utility-owned projects in the
7 Schools and Government Program is wise. Financing is difficult, and utility ownership offers
8 customers a way to install a renewable system should other financing options be unavailable.

9 92. Arizona Discount Solar filed a letter with concerns about poor communication
10 between utilities and solar companies, and the exhaustion of funds for incentives. Staff believes
11 that Arizona Discount's concerns have been addressed by Commission Decision No. 71913, dated
12 September 28, 2010, which clarified certain incentive payments. APS' actions will also help, e.g.,
13 the solar web page information (<http://arizonagoessolar.org/>), the "trigger" reduction mechanism,
14 and the lower per-watt incentive payments. Staff expects these measures will allow the Arizona
15 solar market to move at a more reasonable and manageable pace.

16 **Recommendations**

17 93. Because APS' plan allows it to meet the Commission-approved REST requirements
18 in 2011, Staff recommends that APS' 2011 REST Implementation Plan be approved with the
19 Staff's recommended program and budget adjustments as presented herein. This Plan cost is \$96.4
20 million, and it continues to meet full REST requirements.

21 94. Staff also makes the following recommendations:

- 22 A. That the RES Adjustor Rate be reset to \$0.0101320 per kWh with monthly
23 caps of \$4.05 for residential customers, \$150.53 for non-residential customers,
and \$451.60 for non-residential customers with demands of 3 MW or greater.
- 24 B. Approval of the APS request to make the First Funding Cycle of the 2012 Plan
25 year occur during the final quarter of 2011. This would be a one-time only
26 approval.
- 27 C. Staff recommends approval of the Staff Alternative Budget Trigger
28 Mechanism for residential PV incentives.

- 1 D. Approval of the APS proposed set aside of \$6 million in the budget for non-PV
2 technologies.
- 3 E. Approval of the rapid reservation program as proposed.
- 4 F. Approval of the PPA for the Snowflake biomass plant output.
- 5 G. That the APS feed-in tariff pilot program not be approved at this time.
6 However, if the Commission wishes to approve a FIT pilot program, Staff
7 recommends approving the APS proposal with the following modification: the
8 standard price offer should be a maximum of \$0.195/kWh, i.e., APS should be
9 allowed to enter into a FIT of less than \$0.195/kWh.
- 10 H. That the incentive caps be set at 50 percent of total system cost for both
11 residential and non-residential systems.
- 12 I. Approval of the Customized Incentives for the Home Builders program as
13 proposed.
- 14 J. Approval of APS changes to the definitions of medium and large projects in
15 the non-residential PBI program.
- 16 K. Approval of APS' request to eliminate the "10/20" PBI contract.
- 17 L. Approval of an increase of \$5 million in residential up-front incentives; from
18 \$34 million to \$39 million.
- 19 M. APS be ordered to file tariffs in compliance with the Decision in this case
20 within 15 days of the effective date of that Decision. The filed tariffs would be
21 for:
- 22 a) the proposed fees associated with the system interconnection process,
 - 23 b) the Schools and Government proposed rates, and
 - 24 c) the updated REST surcharge

25 CONCLUSIONS OF LAW

- 26 1. APS is an Arizona public service corporation within the meaning of Article XV,
27 Section 2, of the Arizona Constitution.
- 28 2. The Commission has jurisdiction over APS and over the subject matter of the
application.
3. The Commission, having reviewed the application and Staff's Memorandum dated
November 10, 2010, concludes that it is in the public interest to approve the APS Schools and

1 Government Renewable Energy Program and the REST Implementation Plan for 2011, as
2 discussed herein.

3 ORDER

4 IT IS THEREFORE ORDERED that the RES Adjustor Rate for Arizona Public Service
5 Company be reset to \$0.0101320 per kWh with monthly caps of \$4.05 for residential customers,
6 \$150.53 for non-residential customers, and \$451.60 for non-residential customers with demands of
7 3 MW or greater.

8 IT IS FURTHER ORDERED that the Arizona Public Service Company request to make
9 the First Funding Cycle of the 2012 Plan year occur during the final quarter of 2011 is approved.
10 This is a one-time only approval.

11 IT IS FURTHER ORDERED that the Staff Alternative Budget Trigger Mechanism for
12 residential PV incentives is approved.

13 IT IS FURTHER ORDERED that the Arizona Public Service Company proposed set aside
14 of \$6 million in the budget for non-PV technologies is approved.

15 IT IS FURTHER ORDERED that the rapid reservation program is approved, as proposed.

16 IT IS FURTHER ORDERED that the PPA for the Snowflake biomass plant output is
17 approved.

18 IT IS FURTHER ORDERED that the Arizona Public Service Company feed-in tariff pilot
19 program is not approved at this time.

20 IT IS FURTHER ORDERED that the incentive caps are set at 50 percent of total system
21 cost for both residential and non-residential.

22 IT IS FURTHER ORDERED that the Customized Incentives for Home Builders program
23 is approved, as proposed.

24 IT IS FURTHER ORDERED that the Arizona Public Service Company changes to the
25 definitions of medium and large projects in the non-residential PBI program are approved.

26 IT IS FURTHER ORDERED that Arizona Public Service Company's request to eliminate
27 the "10/20" PBI contract is approved.

28 ...

1 IT IS FURTHER ORDERED that an increase of \$5 million in residential up-front
2 incentives; from \$34 million to \$39 million is approved.

3 IT IS FURTHER ORDERED that Arizona Public Service Company shall file tariffs in
4 compliance with the Decision in this case within 15 days of the effective date of this Decision.
5 The filed tariffs shall be for:

- 6 a) the proposed fees associated with the system interconnection process,
7 b) the Schools and Government proposed rates, and
8 c) the updated REST surcharge

9 IT IS FURTHER ORDERED that this Decision become effective immediately.

10 **BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

11
12 CHAIRMAN

COMMISSIONER

13
14
15 COMMISSIONER

COMMISSIONER

COMMISSIONER

16 IN WITNESS WHEREOF, I, ERNEST G. JOHNSON,
17 Executive Director of the Arizona Corporation Commission,
18 have hereunto, set my hand and caused the official seal of
19 this Commission to be affixed at the Capitol, in the City of
20 Phoenix, this _____ day of _____, 2010.

21 _____
22 ERNEST G. JOHNSON
23 EXECUTIVE DIRECTOR

24 DISSENT: _____

25 DISSENT: _____

26 SMO:RTW:JJP:lhv\WVC
27
28

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